LED-BANK4

COLORbank™ 4

USER MANUAL

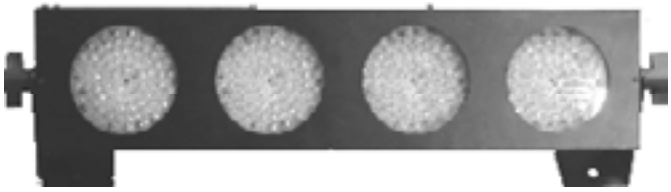

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Table of Content

BEFORE YOU BEGIN

What is included

- 1 x LED-BANK4™
- 1 x Coupling Bracket (Striplight attachment)
- IEC Power cable
- Warranty Card & User Manual

Unpacking Instructions

Immediately upon receiving a product, carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

AC Power

To determine the power requirements for a particular product, see the label affixed to the back plate of the product or refer to the product's specifications chart. A product's listed current rating is its average current draw under normal conditions. All fixtures must be powered directly off a switched circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch. Before applying power, check that the source voltage matches the product's requirement.

Safety Instructions

Please read these instructions carefully, which includes important information about the installation, usage and maintenance?

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always make sure that you are connecting to the proper voltage and that the line voltage you are connecting to is not higher than that stated on decal or rear panel of the fixture.
- This product is intended for indoor use only!
- To prevent risk of fire or shock, do not expose fixture to rain or moisture. Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect from power source before servicing or replacing lamp or fuse and be sure to replace with same lamp source.
- Secure fixture to fastening device using a safety chain. Never carry the fixture solely by its head. Use its carrying handles.
- Maximum ambient temperature is Ta: 40°. Do not operate fixture at temperatures higher than this.
- In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- Don't connect the device to a dimmer pack.
- Make sure power cord is never crimped or damaged.
- Never disconnect power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to lamp while it is on.

Caution! ***There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact CHAUVET.***

INTRODUCTION

Features

- 4 channel DMX-512 LED bank system
- Operating modes:
  - Blackout and static / flashing colors
  - RGB color mixing
  - Color fade
  - Automatic built-in programs with sound activation
- 304 LEDs divided into 4 surfaces, 76 LEDs per surface
  - 40 red, 18 green, 18 blue diodes (per bank)
- RGB color mixing
- Built in color change programs
- Low power consumption
- Master/slave mode with additional output for daisy chaining
  - Allows for color-changing runway effect
- Programmable via any DMX-512 controller
- Includes bracket to link 2 fixtures together for hanging as a single unit

DMX Channel Summary

Blackout and Static/Flashing colors

CH	DESCRIPTION
1	DMX: (000~079) Static Colors
2	No Function
3	Flash Speed
4	No Function

Chase Programs

CH	DESCRIPTION
1	DMX: (080~209) Programs 1 ~ 13
2	Run Speed
3	Flash Speed

RGB Mode

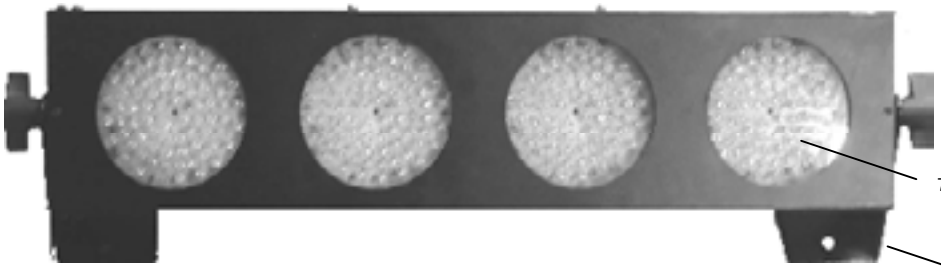
CH	DESCRIPTION
1	DMX: (210~219) RGB Color Mix
2	Red
3	Green
4	Blue

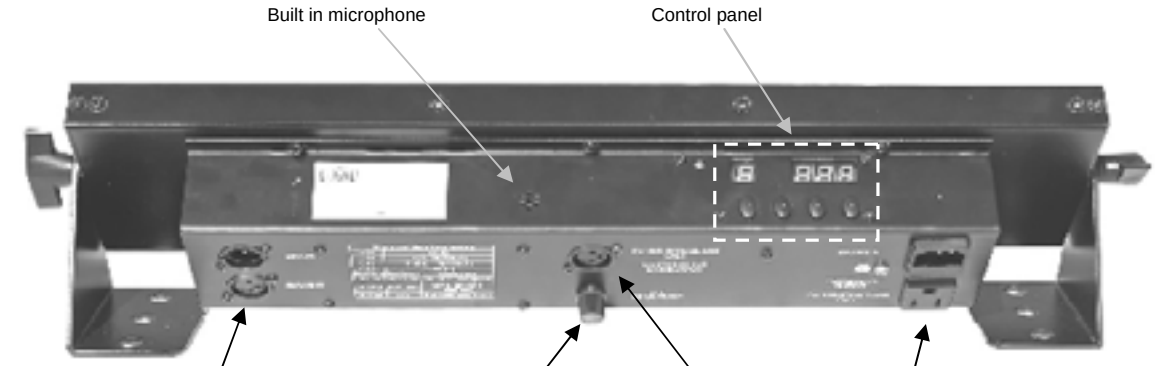
Color Fade Mode

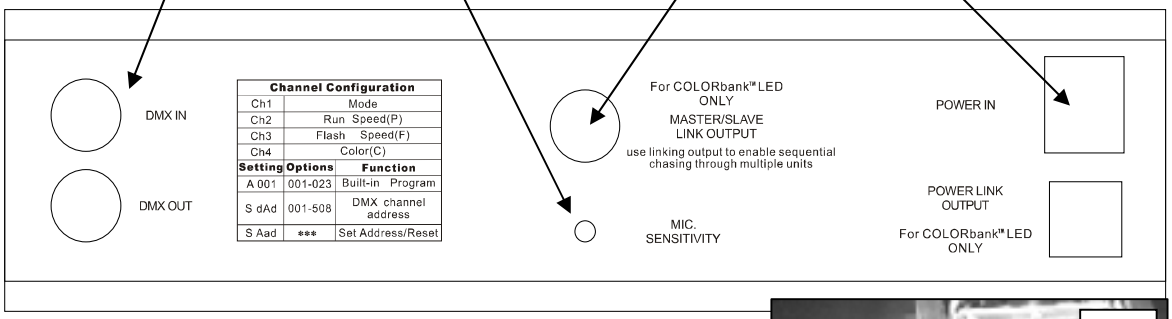
CH	DESCRIPTION
1	DMX: (220~255) Color Fade and Auto Run
2	Run/Fade Speed
3	No Function
4	No Function

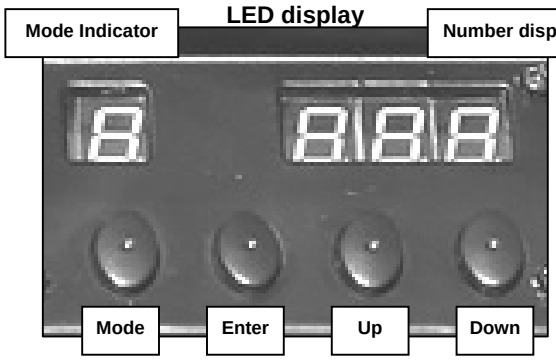
For a detailed view of DMX values turn to the DMX Channel Values on page 12 in the Appendix section.

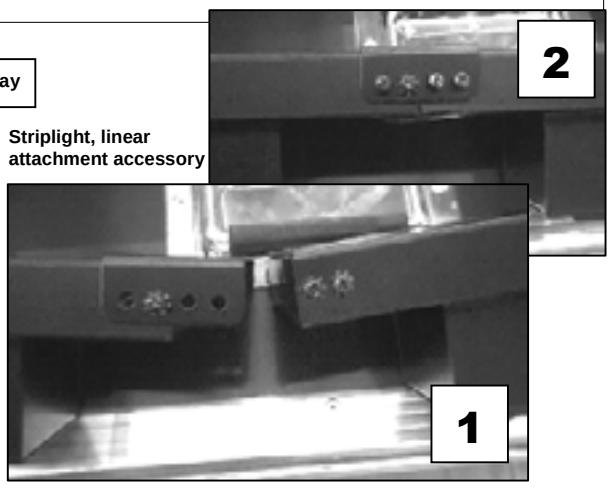
Product Overview











SETUP

Power

The LED-BANK4™ can operate in voltages between 100V~240V 50Hz or 60Hz. It is equipped with an auto sensing transformer.

- To determine the power requirements for a particular fixture, see the label affixed to the back plate of the fixture or refer to the fixture's specifications chart.
- A fixture's listed current rating is its average current draw under normal conditions.
- All fixtures must be powered directly off a switched circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.
- Before applying power to a fixture, check that the source voltage matches the fixture's requirement.
- All fixtures must be connected to circuits with a suitable Earth Ground.

Power Cable Configuration

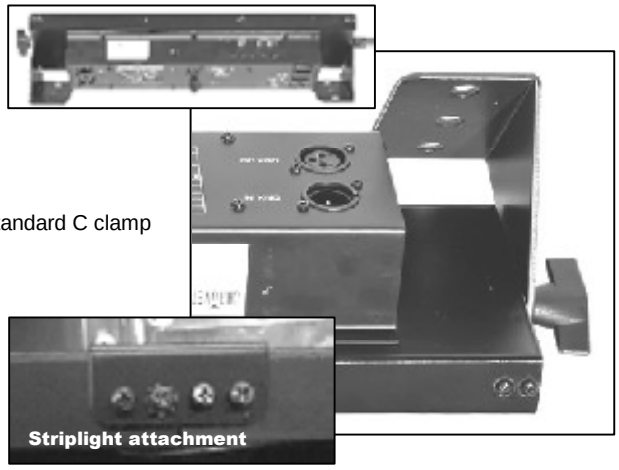
CABLE (EU)	CABLE (US)	PIN	INTERNATIONAL
BROWN	Black	Live	L
BLUE	White	Neutral	N
YELLOW/GREEN	Green	Earth	EG (Ground)

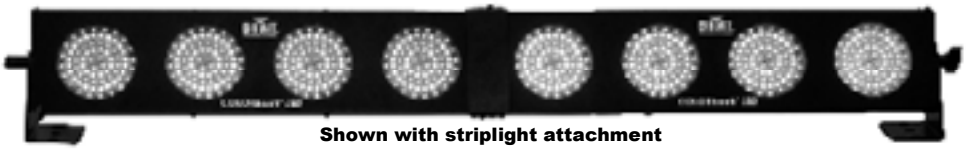
Mounting

Rigging

The fixture includes 2 hanging brackets and one striplight attachment accessory.

1. Use hanging brackets to affix a standard C clamp or mount directly to a flat surface.
2. Connect the fixtures for as strip lights using the strip light attachment provided.





Shown with striplight attachment

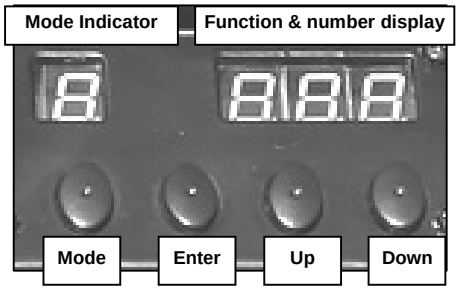
OPERATING INSTRUCTIONS

The COLORbank4™ is a DMX-512 controllable, full RGB color mix led strip light fixture made up of highly efficient and super bright LEDs. There are four flood spot led surfaces whose intensity can be controlled together allowing the creation of an unlimited range of colors.

The COLORbank4™ can operate in Stand-Alone, Master/Slave and via DMX-512 control utilizing 4 channels of control.

Using the control panel

1. Press the [MODE] button repeatedly until the display reads the mode function you wish to change.
2. Press the [DOWN] or [UP] buttons to toggle or scroll through values that pertain to that function.
3. Press [ENTER] to enter the sub-menus.

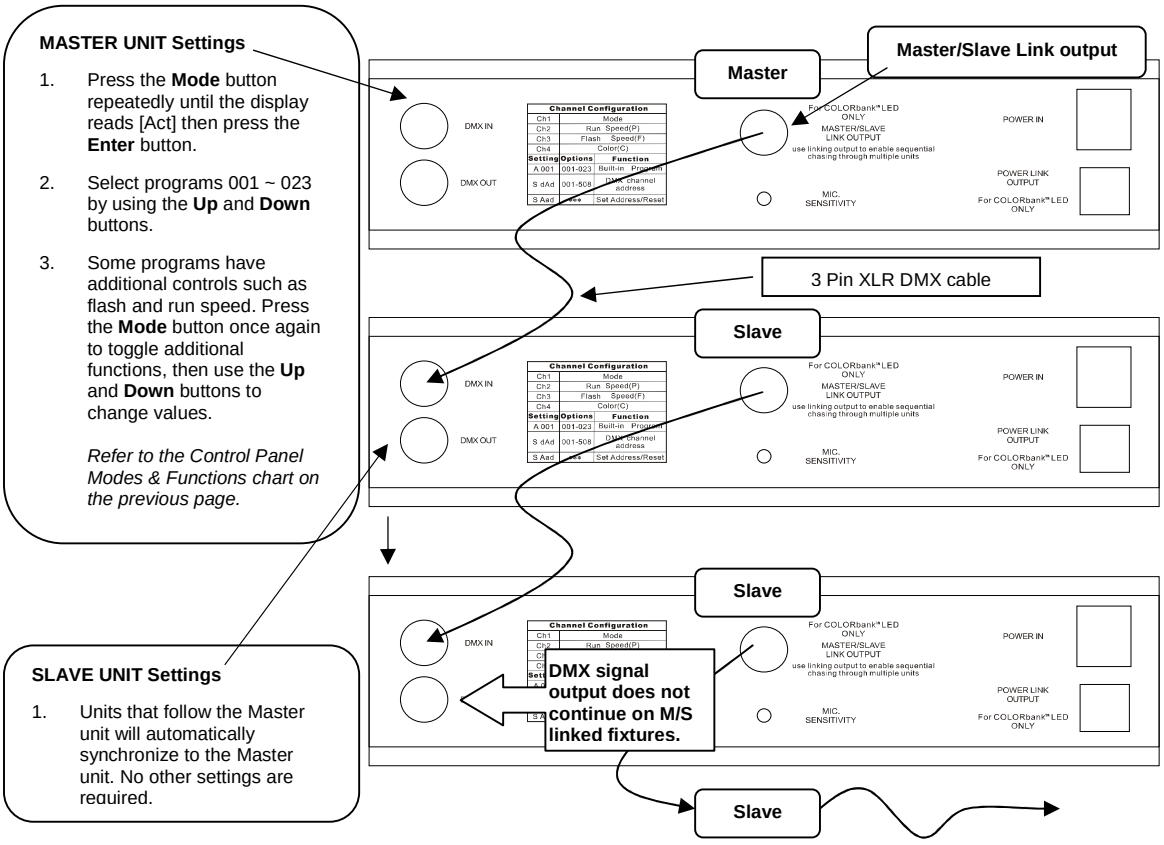


Control Panel Modes & Functions

MODE	FUNC	PROGRAM	FUNCTION/PROGRAM	(P) RUN SPEED	(F) FLASH SPEED	(C) COLOR
ACt	A 000	001	Blackout		Yes	
		002	Red		Yes	
		003	Green		Yes	
		004	Blue		Yes	
		005	Yellow		Yes	
		006	Purple/Cyan		Yes	
		007	White		Yes	
		008	Color Change 1	Yes	Yes	
		009	Color Change 2	Yes	Yes	
		010	Color Change 3	Yes	Yes	
		011	Color Change 4	Yes	Yes	
		012	Color Change 5	Yes		
		013	Color Change 6	Yes		
		014	Sequential Color Chase 1	Yes		
		015	Sequential Color Chase 2	Yes		
		016	Sequential Color Chase 3	Yes		
		017	Sequential Color Chase 4	Yes		
		018	Sequential Color Chase 5	Yes		
		019	Sequential Color Chase 6	Yes		
		020	Sequential Color Chase 7	Yes		
		021	RGB	Red (001-100)	Green (001-100)	Blue (001-100)
		022	Color Fade	Yes		
		023	Automatic Program (sound)			
SYS	S dAd		DMX channel addressing			
	S Aad		Re-initialize fixture Re-establishes correct number of down-link fixtures for sequential color chase runs.			

Master/Slave & Stand Alone

The Master/Slave mode will allow you to link units in a daisy chain fashion. In this mode, the first unit in the daisy chain will command all other units following. Stand Alone can simply be achieved by setting all units to Master. They would no longer be required to be linked in series.



IMPORTANT INSTRUCTIONS FOR MASTER/SLAVE OPERATION

Turn **ON** the Master unit **last**! This will assure that the master unit will detect fully all linked units and re-configure its' built in sequential chase programs to run on the correct number of linked units.

Built in programs detailed

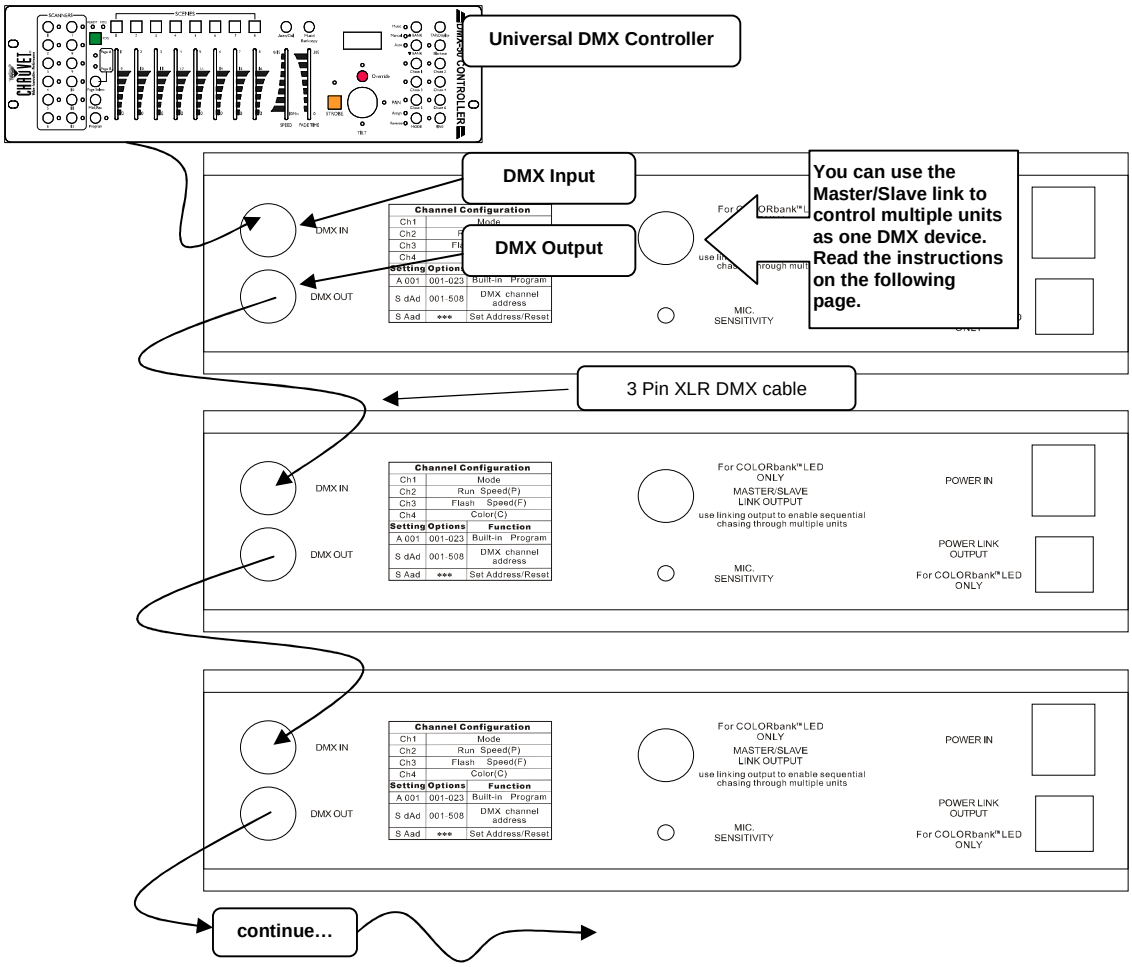
PROGRAM	FUNCTION	OPTIONS
000	Blackout	
001-007	Solid flashing colors	**F** = Flash speed
008-013	Color chase programs	**P** = Run speed **F** = Flash speed
014-020	Sequential color chase patterns	Use sound sensitivity rotary knob to adjust sound level for optimum response or decrease sensitivity completely to operate in Run speed only **P** = Run speed
021	RGB (manual color mix)	**P** = Red **F** = Green **C** = Blue
022	Color fade	**P** = Run speed
023	Auto run (sound active only)	

DMX Control Mode

Operating in a DMX Control mode environment gives the user the greatest flexibility when it comes to customizing or creating a show. In this mode you will be able to control each individual trait of the fixture and each fixture independently.

Daisy Chain Connection

1. Connect the (male) 3 pin connector side of the DMX cable to the output (female) 3 pin connector of the first fixture.
2. Connect the end of the cable coming from the first fixture which will have a (female) 3 pin connector to the input connector of the next fixture consisting of a (male) 3 pin connector. Then, proceed to connect from the output as stated above to the input of the following fixture and so on.



DMX mode setup

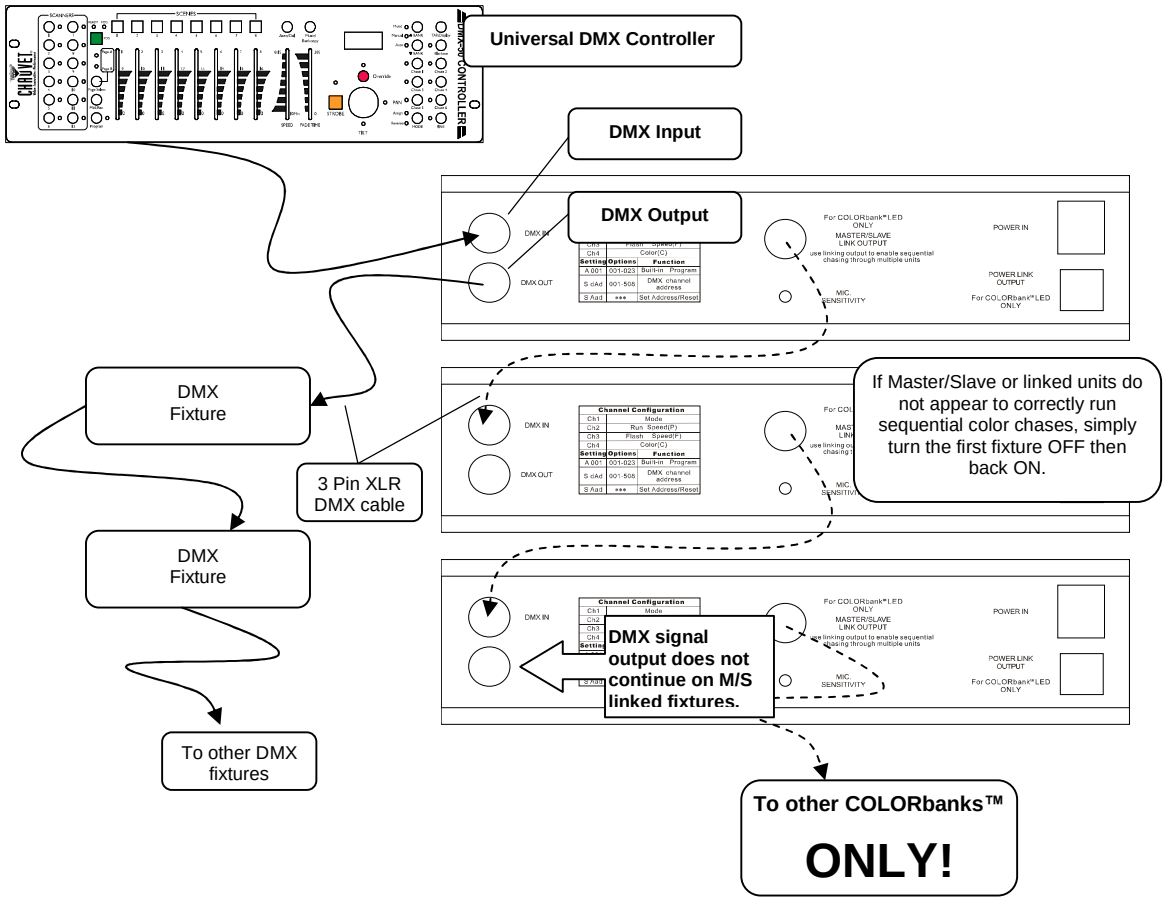
3. Press the **Mode** button until the dispplay reads [SyS] then press **Enter**.
4. Press the **Up** and **Down** buttons until the display reads [S dAd] then press **Enter**.
5. Set the DMX address value by using the **Up** and **Down** buttons.
6. Press the **Mode** button, use the **Up/Down** until the display reads [S Aad]. Press **Enter** to make changes permanent.
7. Press the **Up/Down** buttons to return to the DMX control state, the display will read [S dAd].
8. Repeat this for every fixture you wish to address.

About DMX addressing

This DMX mode enables the use of a universal DMX controller device. Each fixture requires a "start address" from 1 to 511. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that occupies or uses 6 channels of DMX and was addressed to start on DMX channel 100, would read data from channels: 100, 101, 102, 103, 104, and 105. Choose start addresses so that the channels used do not overlap and notate the start address selected for future reference.

If this is your first time addressing a fixture using the DMX-512 control protocol than I suggest jumping to the Appendix Section and read the heading “DMX Primer”. It contains very useful information that will help you understand its use.

Controlling multiple COLORbanks™ as one device



1. Turn on all fixtures.
2. On the first fixture, press the **Mode** button until the dispplay reads [SyS] then press **Enter**.
3. Press the **Up** and **Down** buttons until the display reads [S dAd] then press **Enter**.
4. Set the DMX address value by using the **Up** and **Down** buttons.
5. Press the **Mode** button, use the **Up/Down** until the display reads [S Aad]. Press **Enter** to make changes permanent and re-initialize the fixture so that all following fixtures in the down-link can be counted and the sequential color chases will run correctly.
6. Press the **Up/Down** buttons to return to the DMX control state, the display will read [S dAd].

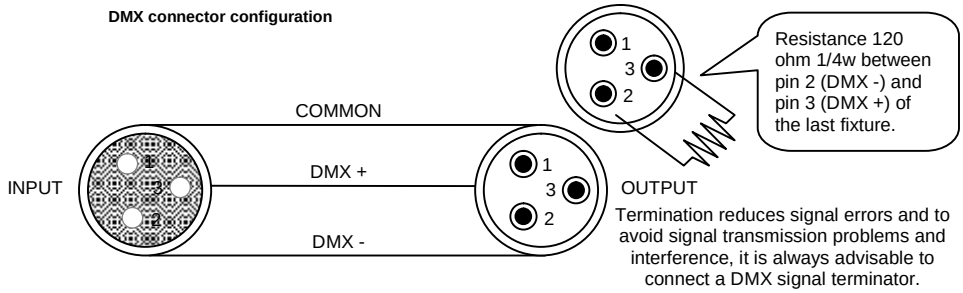
APPENDIX

DMX Primer

There are 512 channels in a DMX-512 connection. Channels may be assigned in any manner. A fixture capable of receiving DMX-512 will require one or a number of sequential channels. The user must assign a starting address on the fixture that indicates the first channel reserved in the controller. There are many different types of DMX controllable fixtures and they all may vary in the total number of channels required. Choosing a start address should be planned in advance. Channels should never overlap. If they do, this will result in erratic operation of the fixtures whose starting address is set incorrectly. You can however, control multiple fixtures of the same type using the same starting address as long as the intended result is that of unison movement or operation. In other words, the fixtures will be slaved together and all respond exactly the same.

DMX fixtures are designed to receive data through a serial Daisy Chain. A Daisy Chain connection is where the DATA OUT of one fixture connects to the DATA IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a controller communicates to each fixture. Use an order that provides for the easiest and most direct cabling. Connect fixtures using shielded two conductor twisted pair cable with three pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is Data Negative (S-) and pin 3 is Data positive (S+). CHAUVET carries 3-pin XLR DMX compliant cables, DMX-10 (33'), DMX-4.5 (15') and DMX-1.5 (5')

Fixture Linking



Note! ***If you use a controller with a 5 pin DMX output connector, you will need to use a 5 pin to 3 pin adapter. CHAUVET Model No: DMX5M.***
The chart below details a proper cable conversion:

3 PIN TO 5 PIN CONVERSION CHART

Conductor	3 Pin Female (output)	5 Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data (-)signal	Pin 2	Pin 2
Data (+) signal	Pin 3	Pin 3
Do not use		Do not use
Do not use		Do not use

DMX Channel Values

NOTE!
Please read all instructions carefully on fixture DMX control mode and addressing.

DMX channels 2, 3 and 4 functions are determined by the current settings of channel 1. For example, while Channel 1 is set between 210 and 219 the following conditions will apply;

- Channel 2 will control the Red leds
- Channel 3 will control the Green leds
- Channel 4 will control the Blue leds

CHANNEL	VALUE	FUNCTION	CH 2	CH 3	CH 4
1		**Static Colors**		Flash Speed 000 ⇔ 249 Sound Active 250 ⇔ 255	
	000 ⇔ 009	Blackout			
	010 ⇔ 019	Red			
	020 ⇔ 029	Green			
	030 ⇔ 039	Blue			
	040 ⇔ 049	Yellow			
	050 ⇔ 059	Purple			
	060 ⇔ 069	Cyan			
	070 ⇔ 079	White			
		Color Changes	Run Speed 0-100%	Flash Speed 000 ⇔ 249 Sound Active 250 ⇔ 255	
	080 ⇔ 089	Color change 1			
	090 ⇔ 099	Color change 2			
	100 ⇔ 109	Color change 3			
	110 ⇔ 119	Color change 4			
	120 ⇔ 129	Color change 5			
	130 ⇔ 139	Color change 6			
		Sequential Color Chases			
	140 ⇔ 149	Color chase 1			
	150 ⇔ 159	Color chase 2			
	160 ⇔ 169	Color chase 3			
	170 ⇔ 179	Color chase 4			
	180 ⇔ 189	Color chase 5			
	190 ⇔ 199	Color chase 6			
	200 ⇔ 209	Color chase 7			
		RGB Color Mix	Red 0-100%	Green 0-100%	Blue 0-100%
	210 ⇔ 219	RGB mode			
	220 ⇔ 229	Color Fade	Fade Speed 0-100%		
	230 ⇔ 255	Auto Run (sound active only)			

Returns Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Merchandise Authorization Number (RA #). Products returned without an RA # will be refused. Call CHAUVET and request RA # prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. CHAUVET reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Claims

Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise. It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Any other claim for items such as missing component/part, damage not related to shipping, and concealed damage, must be made within seven (7) days of receiving merchandise.

Technical Specifications

WEIGHT & DIMENSIONS

Length.....572 mm (22.5 in)
Width.....146 mm (5.75 in)
Height .....97 mm (3.8 in)
Weight.....2.94Kgs (6.48 lbs)

POWER

Switch-selectable power setting 100-240V 50/60Hz
AC input.....3 prongs IEC 60320 C14
Current draw .....(peak <36W @ 120V)

CONTROL & PROGRAMMING

Data input .....3-pin XLR male socket
Data output .....3-pin XLR female socket [2nd female XLR for linking purposes only]
Data pin configuration .....pin 1 shield, pin 2 (-), pin 3 (+)
Protocols.....DMX-512 USITT
DMX Channels.....4

FUSE

Main.....20mm Glass 2A, 250W Fast Blow

LEDS

Quantity of LEDs.....(304) Total divided into 4 surface areas
.....(Red 40, Green 36, Blue 36) in each area

ORDERING INFORMATION

COLORbank™ 4.....LED-BANK4
FUSE 2A 250W.....P170FUSE002

Technical Support

Address:	Service Dept. 3000 N 29th Ct, Hollywood, FL 33020 (U.S.A.)
Support (Email):	tech@chauvetlighting.com
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Fax:	(954) 929-5560 - (Attention: Service)
Website:	http://www.chauvetlighting.com